

PROCEEDINGS
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THE FUNGOUS INSECT FAUNA OF A MESOPHYTIC
WOODS IN NEW JERSEY.

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During the course of a survey of the plants and insects of a moist woods, special attention was paid to the fungous insect fauna and the following notes summarize the findings.

The surveyed area consisted of about fifteen acres of moist woods located at Monmouth Junction, N. J., on the lower border of the Piedmont Plain and just above or on the southern edge of the deciduous zone of New Jersey. The flora of this area was typical of many of the numerous similar woods found in the Piedmont Plain. The ground was moist with many wet spots but seldom became swampy. Among the trees the red maple was the dominant species. This together with the oaks (*palustris*, *rubra*, *alba*) contributed over half the trees in the woods, the balance consisting of ironwood, sweet gum and beech with scattering clumps of gray birch in various stages of decay. The shrubs consisted of viburnums, spice bush and elder. In the more open spaces dense thickets of green briar prevailed.

The rich fungus flora consisted mainly of polypores thriving on the many trees and stumps in various stages of decay and numerous species of gill fungi supported by the moist forest floor. Among the fungi, most of the conspicuous forms belonged to the *Polyporaceae* and *Agaricaceae*. Much of the dead wood was occupied by such species as *Polyporus versicolor*, *Polyporus pargamenus*, *Daedalia quercina* and similar coriaceous forms. In the *Agaricaceae* those belonging to the genera *Pleurotus*, *Pluteus*, *Russula*, *Lactarius*, *Collybia* and *Clitocybe* were the most conspicuous. The following table summarizes the fungous insect findings by families.

FUNGOUS INSECTS IN THE WOODS.

<i>Order</i>	<i>Family</i>	<i>No. species</i>	<i>Family habits</i>
Collembola		2	saprophagous
Coleoptera	Silphidae	1	"
	Staphylinidae	10	predacious, saprophagous
	Histeridae	1	predacious
	Scaphidiidae	1	saprophagous
	Dascillidae	1	"
	Ostomidae	1	varied
	Nitidulidae	7	varied
	Erotylidae	3	saprophagous
	Cryptophagidae	1	"
	Colydiidae	1	"
	Endomychidae	1	"
	Tenebrionidae	3	"
	Melandryidae	2	"
	Anobiidae	2	"
	Cisidae	9	"
	Anthribidae	1	"
Thysanoptera		1	"
Diptera	Tipulidae	1	"
	Mycetophilidae	1	"
	Ortalidae	1	"
Acarina	Oribatidae	2	"
		53	

Of the 53 species collected, the Coleoptera supplied the major portion and in this order the *Staphylinidae* and *Cisidae* contributed more species than other single families. Had it been possible to breed out the fungous gnats inhabiting gill fungi, the Diptera would have been better represented.

It is of interest to compare the number of species associated with fungi with the numbers found in other situations in the woods and such comparison is found in the table below.

DISTRIBUTION OF THE INSECTS IN THE WOODS.

<i>Situation, etc.</i>	<i>No. species collected. (all orders)</i>	<i>Percent of total number</i>
Sifting	37	9.0
In dead stumps, under bark, etc.	44	11.0
Under stones	17	4.0
In dead trees	6	1.4
Taken flying or sweeping	210	50.0
Flower visitors	15	3.6
Galls and leaf miners	25	6.0
Fungous forms	53	13.0
Scales and aphids	8	2.0
	415	100.0



FIG. 1.—Ideal conditions for the support of fungus insects.

